

REMARKS

By this Amendment, claims 1-2, 8-11, 16-17 and 23-24 are amended. Claims 3-7, 12-15 and 18-22 remain in the application. Thus, claims 1-24 are active in the application. Reexamination and reconsideration of the application are respectfully requested.

On page 2 of the Office Action, claims 1-24 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Young (U.S. 4,706,121) in view of Browne et al. (PCT Publication No. WO 92/22983).

Without intending to acquiesce to this rejection, independent claims 1, 10 and 16 have each been amended to more clearly illustrate the marked differences between the present invention and the applied references. Accordingly, the Applicant respectfully submits that claims 1-24 are clearly patentable over Young and Browne et al. for the following reasons.

In conventional storage-type data receivers, it is known when an updated version of data previously stored in a data storage is supplied. Upon each instance of data being received that was previously provided at irregular intervals, the data previously stored in the data storage is overwritten with the data that is repeatedly provided at irregular intervals. However, in conventional storage-type data receivers, the data that is repeatedly provided at irregular intervals is redundantly stored even though the contents thereof are the same as the contents of the data that were previously stored in the data storage. Therefore, old and useless data is also redundantly accumulated in the data storage. As a result, the storage capacity and power of the data storage are wasted, and the life cycle of the data storage is shortened due to the frequency of unnecessary data writing.

Accordingly, an object of the present invention is to solve the above-described problems by providing a storage-type data receiver which minimizes the frequency of data writing to a data storage of the storage-type data receiver for receiving data that is repeatedly distributed from an external data source and that is updated at irregular intervals, and for storing only the latest updated data to the data storage (see line 20 on page 3 to line 14 on page 4 of the specification).

In order to solve the aforementioned problems of the conventional storage-type data receivers, the storage-type data receiver and method of the present invention receive and store data containing content information being updated at irregular intervals and next-update information indicating when the content information will be next updated, where the data is distributed by a data source. The present invention stores only the latest updated content information to the data storage by replacing the content information previously stored in the data storage only with content information that is different from the content information previously stored in the data storage.

The storage-type data receiver of the present invention is recited in claims 1 and 16, and the storage-type data reception method of the present invention is recited in claim 10.

Claim 1 has been amended to recite that content information previously stored in the storage means is replaced by only content information that is different from the content information previously stored in the storage means.

Claim 16 has been amended to recite a storage controller operable to control the data storage based on the data update time indication signal so as to newly receive data when the content information is updated, wherein content information previously stored in the data storage is replaced by only content information that is different from the content information previously stored in the data storage.

Claim 10 has been amended to recite the method as comprising effectuating the storing of the content information based on the determination made in the determining of whether or not it is time to update the content information so as to newly receive data when the content information is updated, wherein content information previously stored in the storing of the content information is replaced by only content information that is different from the content information previously stored in the storing of the content information.

Accordingly, claims 1, 10 and 16 each recite that the newly received content information, which is used to update and replace the currently stored content information, is not the same as the currently stored content information. Therefore, the inventions of claims 1, 10 and 16 are able to prevent replacing the currently stored content information with the same content information.

The inventions of claims 1, 10 and 16 are thus able to achieve the object of the present invention of minimizing the frequency of data writing in the data storage of a storage-type receiver for receiving data that is repeatedly distributed from an external data source, while keeping the stored content information current with the latest updated content information, and preventing unnecessary data writing to the data storage.

On the other hand, Young discloses a receiver for receiving and storing TV schedule information as a part of a conventional TV broadcast. Young discloses the use of scheduling information automatically triggers the storage of a program for unattended recording. However, as acknowledged by the Examiner, Young clearly does not disclose or suggest replacing stored data with newly received data.

To teach this feature, the Examiner applied Browne et al., which discloses a program storage section in which older data is automatically deleted in order to free up storage capacity for new data to be written thereto (see page 19, lines 6-18).

However, similar to Browne et al., clearly does not disclose or suggest that previously stored data is replaced only by data that is different from the previously stored data. Instead, as described above, Browne et al. automatically replaces the previously stored data when the storage capacity of the storage section 104 is reached even if the new data is identical to the previously stored data.

Therefore, both Young and Browne et al. clearly fail to disclose or suggest that content information previously stored in the storage means or data storage is replaced by only content information that is different from the content information previously stored in the storage means or data storage, as recited in claims 1 and 16.

Similarly, both Young and Browne et al. clearly fail to disclose or suggest content information previously stored in the storing of the content information is replaced by only content information that is different from the content information previously stored in the storing of the content information, as recited in claim 10.

Therefore, no obvious combination of Young and Browne et al. would result in the inventions of claims 1, 10 and 16 since Young and Browne et al., either individually or in combination, clearly fail to disclose each and every limitation of claims 1, 10 and 16.

Furthermore, it is submitted that the clear distinctions discussed above are such that a person having ordinary skill in the art at the time the present invention was made would not have been motivated to modify Young and Browne et al. in such a manner as to result in, or otherwise render obvious, the present invention as recited in claims 1, 10 and 16.

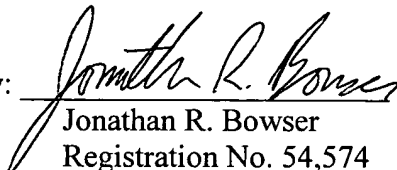
Therefore, it is submitted that the claims 1, 10 and 16, as well as claims 2-9, 11-15 and 17-24 which depend therefrom, are clearly allowable over the prior art as applied by the Examiner.

In view of the foregoing amendments and remarks, it is respectfully submitted that the present application is clearly in condition for allowance. An early notice thereof is respectfully solicited.

If, after reviewing this Amendment, the Examiner feels there are any issues remaining which must be resolved before the application can be passed to issue, the Examiner is respectfully requested to contact the undersigned by telephone in order to resolve such issues.

Respectfully submitted,

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